ANTHEM PRE 1L OPERATING MANUAL

We at Sonic Frontiers hope you will derive many years of listening pleasure with your new Anthem Pre 1L. This Operating Manual contains important information regarding the operation and care of the Pre 1L. Be sure to read this manual carefully and follow these instructions in order to keep it performing and sounding its best. Please contact Sonic Frontiers if you have any questions, a Customer Service Representative will be pleased to assist you.

WHAT'S IN THE BOX?

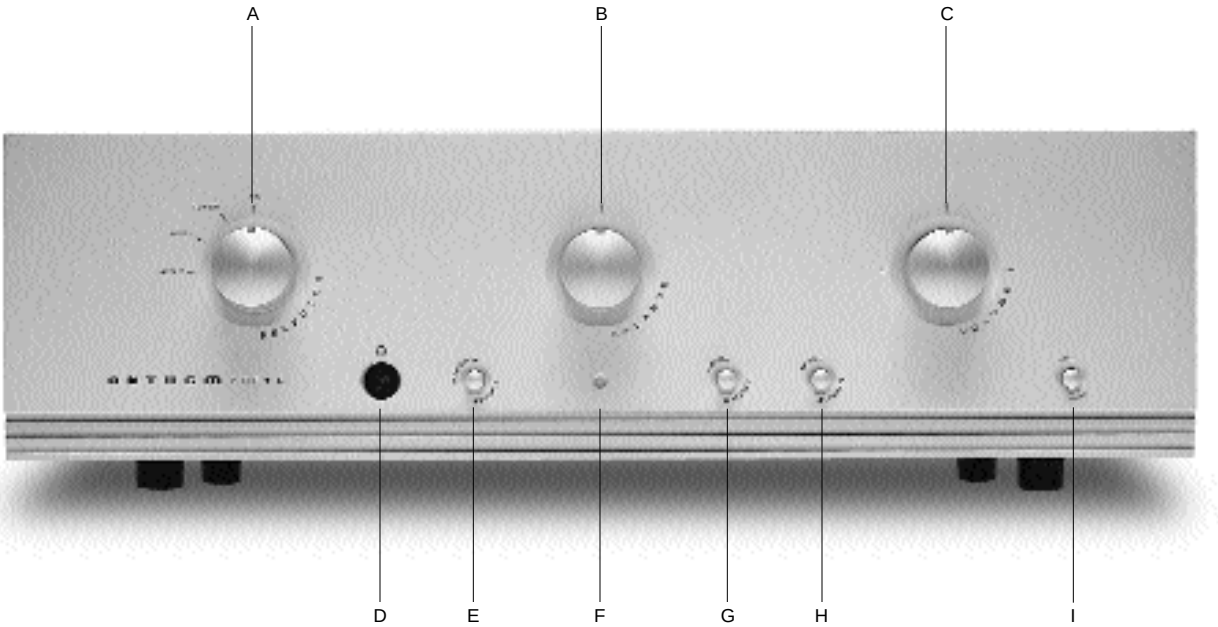
In addition to the Pre 1L, the Power Supply (their appropriate covers), and the operating manual you are presently reading (with associated inserts and warranty card), there are a few more items to take inventory of before steps are taken to make the Anthem Pre 1L operational.

These items are:

- two matched pairs of 6922 tubes (or equivalent), totaling 4*
- a glove for handling the tubes
- a detachable AC power cord
- 18 screws
- 1 Philips #1 screwdriver

After completing an inventory of these items, proceed to the next steps.

*These tubes are carefully measured and matched in pairs. Take extra care to keep the pairs from being mixed and mismatched which would degrade performance.


A
B
C
D
E
F
G
H
I

CONTROL FUNCTIONS

A SELECTOR SWITCH

This knob is rotated to select a Line Level Input (M - overleaf). Note that the Selector Switch is bypassed when the Tape/EPL(External Processor Loop) mode is selected by depressing the Tape/EPL-Source button (E).

B BALANCE CONTROL

This knob controls the relative balance of the left and right channels to compensate for any discrepancies caused by speaker placement, source imbalance, etc. Full rotation to the left or right of the center detent will fully attenuate the left or right channels.

C VOLUME CONTROL

This knob allows variable control over the Pre 1L output level. Turn it clockwise and the music gets louder!

D HEADPHONE INPUT JACK

The Headphone Jack accepts 1/4" stereo headphone plugs. Upon insertion of the headphone plug, the main preamp output is disabled. All other preamp functions remain operational. Removal of the headphone plug restores the main output signal.

E TAPE/EPL(EXTERNAL PROCESSOR LOOP)-SOURCE BUTTON

When this button is in the SOURCE position (button is not depressed) the signal is routed through the Selector Switch (A) to the Tape/EPL Output (L - overleaf) connected with a tape deck or external processor such as a surround sound decoder. Listening and taping is done in this mode. When the button is depressed the source signal is taken from a tape or processor source through the Tape/EPL Inputs (N - overleaf) bypassing the selector switch.

F PREAMPLIFIER LED

This Light Emitting Diode has three status conditions identified by different displays. They are:

- DIM - indicates the Power Switch (I) has been initialized and that the Pre 1L is cycling through it's 45 second turn on sequence. During this turn on sequence the output will be muted.
- BRIGHT (Normal) - indicates that the Power Switch (I) is in the ON position (depressed) and that the Mute Switch (H) is in the out position.
- FLASH (Normal Intensity)- indicates the Pre 1L is muted; the Mute-Operate button (H) is depressed in the Mute position.

G MONO/STEREO BUTTON

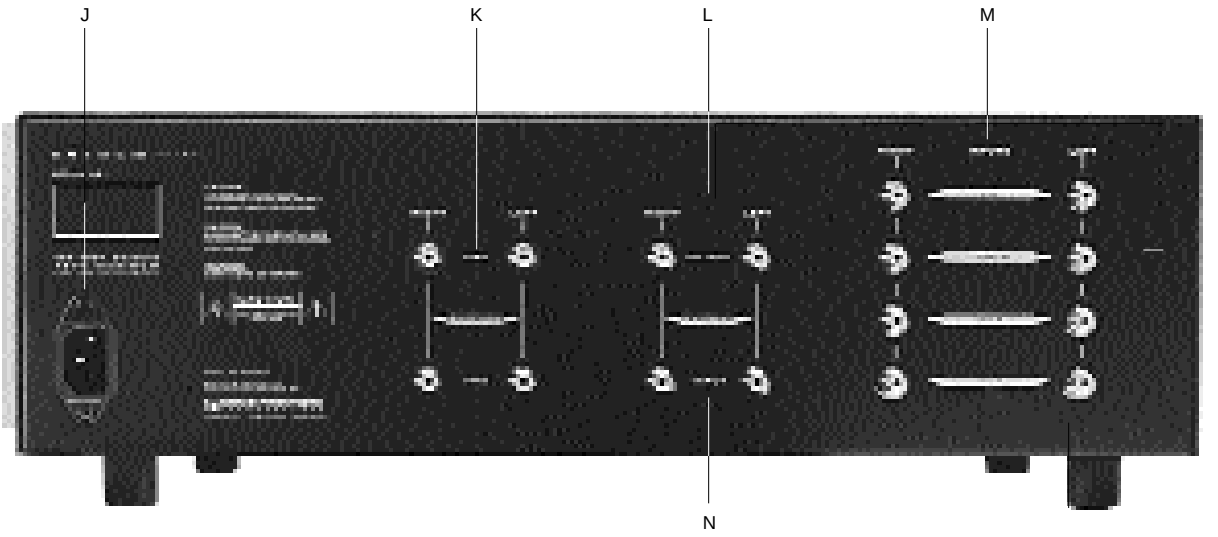
When in the ON position (button depressed) the Mono function is enabled. This function sums all selected input signals together, and directs them to both channels. As long as the button is depressed a left or a right mono signal will be sent to both channels of the preamplifier. All other preamplifier functions will operate normally.

H MUTE-OPERATE BUTTON

When in the OPERATE position (not depressed), this button will allow normal operation. When in the MUTE position (button depressed), the audio signal is prevented from reaching the Main Outputs (K - overleaf). The LED (F) will flash as a reminder.

I ON-OFF BUTTON

When in the ON position (button depressed), all power supplies within the preamplifier are initiated. A delay of approximately 45 seconds is required for the power supplies to stabilize. After the 45 second delay, the muting relay will engage, and the preamplifier is operational. When in the OFF position (not depressed), the Pre 1L is OFF.


J
K
L
M
N

CONNECTION FUNCTIONS

J DETACHABLE IEC AC POWER CORD SOCKET

Plug the Detachable Power Cord into this socket (see Figure 4). The Pre 1L is factory set for the correct operating voltage for the area in which it is sold (see shipping box for voltage setting). If a different operating voltage is required, please contact an authorized Sonic Frontiers or Anthem dealer, distributor or the factory directly.

K MAIN OUTPUTS ONE AND TWO

These outputs connect to the single-ended inputs of other units such as power amplifiers or a crossover unit; connect left channel to left channel and right channel to right channel. The set of two allows for easier biamping and greater flexibility when dealing with components such as electronic crossovers, a powered subwoofer, etc.

L TAPE/EPL(EXTERNAL PROCESSOR LOOP) OUTPUT

This output connects to the single-ended inputs of a tape deck or external processor; connect left channel to left channel right channel to right channel. This output always follows the input selection of the Selector Switch (A).

M LINE LEVEL INPUTS FOR CD, TUNER AND AUXILIARY SOURCES

Line level single-ended source connection may be made to these 4 sets of RCA connectors; connect left channel to left channel right channel to right channel.

N TAPE/EPL INPUT

This input accepts a single-ended RCA input connection from a tape deck or external processor;connect left channel to left channel right channel to right channel. These inputs are activated when the Tape/EPL-Source button (E) is depressed.

WARNING- DISCONNECT THE AC DETACHABLE POWER CORD FROM THE Pre 1L AND WAIT 5 MINUTES BEFORE REMOVING COVER, TUBES OR FUSE.

SETTING UP

The Pre 1L comes with four tubes, as follows:

6922 (LV1 & V1, LV2 & V2)

The 6922 tubes may be replaced with a matched set of ECC88/6DJ8s or E188CC/7308s with no circuit modification. These tubes were chosen for their reliability and extremely low noise. The amplifier topology used in the Pre 1L delivers exceptional performance using the 6922 tube. The tubes' low noise heightens dynamics and provides a natural tonal balance.

INSERTION OF THE TUBES

1. Using the screwdriver supplied, remove the cover of the Pre 1L. For your convenience, only four of the screws are installed at the factory.

2. When handling the tubes, it is recommended that the cotton gloves provided be worn to prevent skin oils from depositing on the glass surface.

3. Noting the location of the tube sockets in the top view photo (Figure 2) or directly on the PC Board, inspect the tubes for corresponding labels and markings. Once locations are mapped, take a tube and inspect the pins, noting the larger space between two of the pins (see Figure 1). This space will match with the socket. Insert each tube into the appropriate tube socket, making sure all pins and pin holes are aligned. Do not force the tubes into the sockets. "Rock" the tubes gently while pushing slowly until each tube is firmly seated.

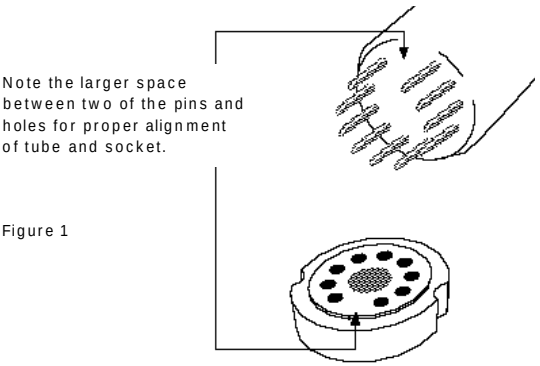


Figure 1

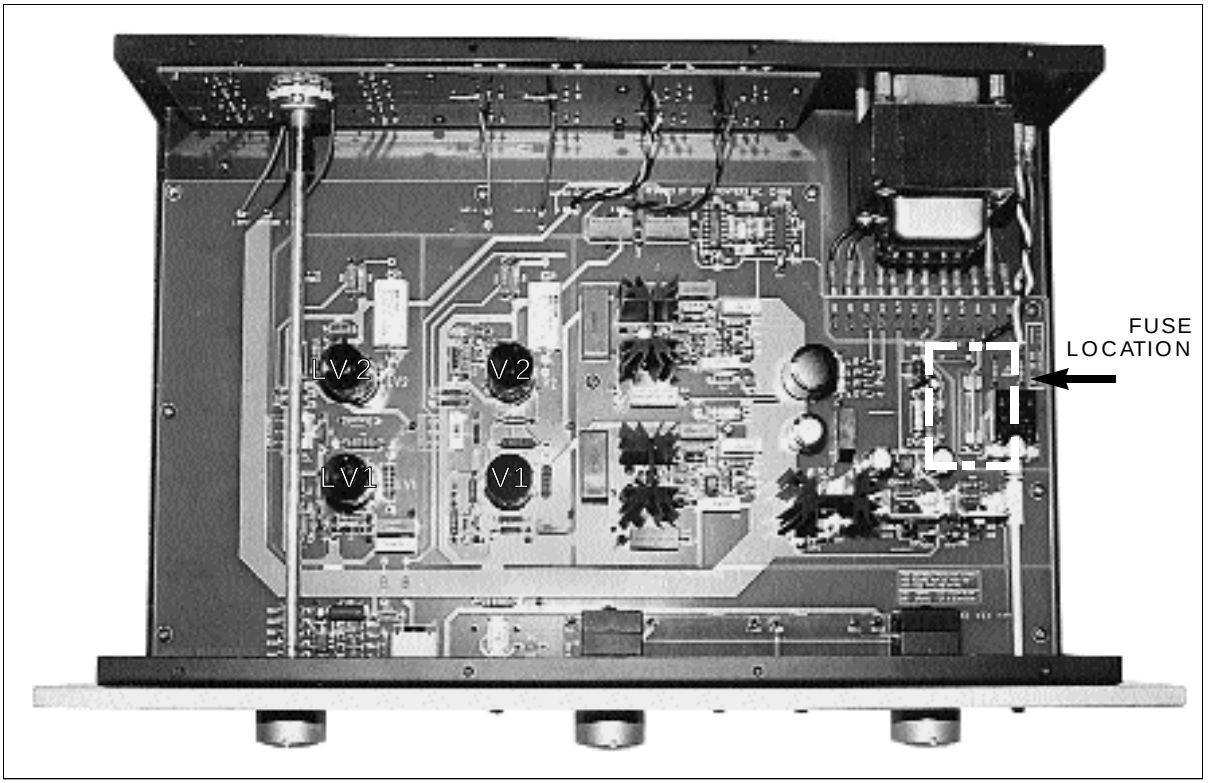


Figure 2 - Tube and Fuse Location

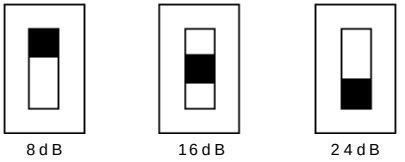
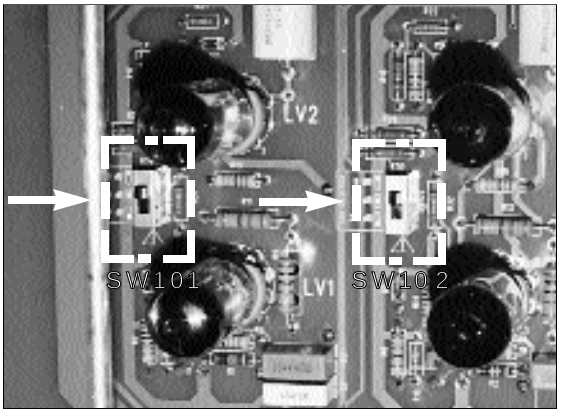


Figure 3 - Gain Switches (Viewed from front panel.)



Gain Switches shown in 8dB position.

After the insertion of the tubes, replace the cover and fasten it with the screws provided. The Pre 1L is now ready for operation. For further information on tube replacement, NOS (New Old Stock) tubes, contact your dealer, a Sonic Frontiers Customer Service Representative or The Parts Connection, a division of Sonic Frontiers.

OPERATION

Before plugging in the Pre 1L, check to see that the unit is configured for the correct AC line voltage for country of use. The operating AC line voltage is indicated on the side of the shipping box. If the Pre 1L is set incorrectly for the country in which it is to be operated, contact the dealer or distributor in your area. If the unit is configured properly, continue with operation.

Connect the Detachable Power Cord to the Pre 1L chassis rear (see Figure 4). Plug your Pre 1L into the AC power source.

Note: Never unplug your Pre 1L during operation. First shut off your Power Amplifier, mute the Pre 1L by depressing the Mute/Operate button (H), and remove AC power by pressing and releasing Power Switch (I).

All remaining connections to external equipment are made with single-ended (unbalanced) type audio interconnect. Connect source units to the Inputs of the Pre 1L (M) or Tape Input (N); left channel to left channel and right channel to right channel.

If a tape or other line level recording or processing device is being implemented, connect the left and right audio output of the unit to the corresponding left and right Tape/ EPL Input (O) of the Pre 1L. Also connect the left and right Tape/EPL Outputs (M) on the Pre 1L to the corresponding left and right audio inputs of the external device.

Connect Set 1 of the Main Outputs (L) on the Pre 1L to a stereo amplifier or two mono amplifiers; left channel to left channel and right channel to right channel. Set 2 of the Main Outputs (L) may be used under different situations and in combination with Set 1. These situations include biamping, the use of active crossovers, powered subwoofers and other equipment; all situations being unique and system dependent. Refer to the instruction manuals provided with the other equipment before using the second set of Outputs.

The Pre 1L is now ready for operation. Power the Pre 1L by placing the On-Off button (I) in the ON position. The Power Indicator LED (F) will stay DIM for approximately 45 seconds. During this time, the Main Outputs are muted while the tubes are warming up and stabilizing. As soon as the Power Indicator LED is at steady, normal intensity, the Pre 1L is ready for operation.

Select a ready signal source with the Selector Switch (A).

Balance is adjusted through use of the Balance Control (B); turning it left and right will adjust the left and right levels respectively. The center detent is an indicator for equal, or balanced, left and right levels.

Volume is adjusted through use of the Volume Control (C). Turning this control clockwise increases the volume level of both channels. Be sure the level is sufficiently low when turning the unit ON or returning to the OPERATE mode after MUTING, to prevent damage to speakers, amplifiers or the Pre 1L itself.

To record from a source, place the Tape/EPL-Source button (E) in the SOURCE position, select the source material you wish to record via the Selector Switch (A), and commence recording. To play back a tape recording, place the Tape EPL/ Source button in the TAPE position.

Muting the Pre 1L is achieved by placing the Mute/Operate button (H) in the MUTE position (button depressed); the output signal is then cut off. To resume listening, place the button in the OPERATE position (not depressed).

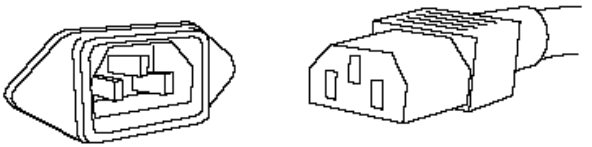


Figure 4 - Alignment of the AC power connector and detachable cord.

NOTE: Under no circumstances should you replace the AC power fuse with one of a higher current rating! Doing so may cause further damage to the Pre 1L and will also void the warranty. In addition, your continued protection from risk of fire or shock would be seriously compromised.
• Ensure the tubes are plugged firmly into their sockets as described in “INSERTION OF THE TUBES”.

4. Be sure the rest of the system is functioning properly (i.e. source unit, power amplifiers, cables and connections, etc.).

5. With tubes, fuses, covers and power cords in place, check that the LED (F) is lit. If all of the above troubleshooting steps have been followed and the LED is not lit, contact your dealer or distributor for assistance.

TROUBLESHOOTING

If at any time the Pre 1L fails to work properly, consult this checklist:

1. Check that the AC Detachable Power Cord is plugged into the Pre 1L Detachable Power Cord Socket (I) and is connected to a live source of AC power. For instance, if using a power bar, check that the bar is turned on.

2. Ensure that all Input and Output connections are secure for a proper electrical contact.

3. DISCONNECT THE AC POWER CORD, wait 5 minutes, remove the chassis covers from the Pre 1L and check that:
• A “slow-blo” fuse, with a rating of 0.5 Amp/250 V (0.25 Amp/250 V for European and Asian versions), is installed on the circuit board under the soft plastic cover (see figure 5).
• The AC power fuse is intact and has not blown. If the fuse has blown, the thin metal conductor will have melted and the glass may appear “smoked”. If the fuse has blown, replace with a fuse of the same rating (0.5 Amp/250V fast-blo for 100 to 120 volt countries and .25 Amp/250V fast-blo for 220 to 240 volt countries). (See Figure 5.)

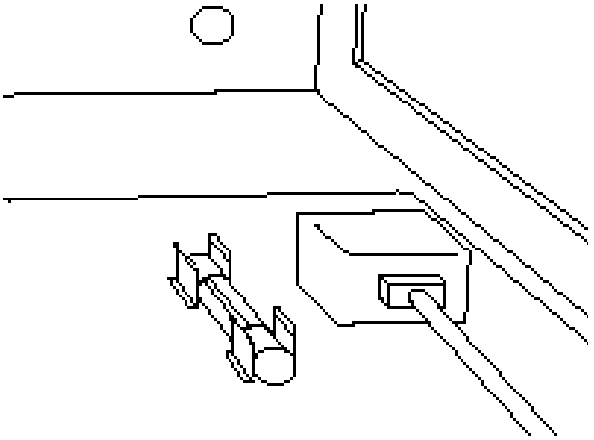


Figure 5 - Fuse location.

WARNING-DISCONNECT THE AC DETACHABLE POWER CORD FROM THE Pre 1L AND WAIT 5 MINUTES BEFORE REMOVING COVER, TUBES OR FUSE.

BREAK-IN TIME

As with all audio electronic products, the ultimate sonic character of the Pre 1L will not be realized until and unless the unit receives a minimum of approximately 70 hours of signal break-in time (i.e. the Pre 1L is on and producing an output signal).

PLACEMENT FOR PROPER VENTILATION

Allow at least 4" (15 cm) of clear space above the Pre 1L chassis for proper ventilation, making sure the air vent slots in the chassis cover remain unobstructed. Also, be sure that the Pre 1L is placed on a secure, hard and level surface (not on carpet).

SAFETY INSTRUCTIONS

1. Ventilation - Although your Pre 1L generates only nominal heat in use, be sure that the ventilation slots in the top cover have at least 4" of unobstructed air space above them.
2. Water and Moisture - This product should not be used near water. To prevent fire or shock hazard, do not expose this product to rain or moisture.
3. Heat - This product should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances which produce heat.
4. Power Sources - This product should be connected to an AC power source of the proper rated voltage. The original shipping container will stipulate the AC voltage this unit can operate with correctly.
5. Cleaning - A regular dusting with a soft, non-abrasive cloth will generally keep the finish of the faceplate and chassis looking like new. At no time should you allow any liquid to come in contact with the Pre 1L; it may run into the electronic circuitry and cause damage which will not be covered under your warranty.
6. Servicing - Do not open this product. No user serviceable parts inside. Refer servicing to an authorized service technician.
7. Non-Use Periods - The power cord of this product should be unplugged from the outlet when left unused for an extended period of time.
8. Do not remove the Pre 1L covers while the unit is "on", or connected to an AC power source. Cover screws could fall through the ventilation slots and cause electrical damage to the Pre 1L.

PACKING MATERIALS

Please retain all of the packing material and shipping boxes for your Pre 1L. They are custom designed to prevent shipping damage from occurring. Sonic Frontiers, Inc. will accept no responsibility for any damage occurring to a Pre 1L that is shipped in packing material other than the original Sonic Frontiers packing material.

DISCLAIMER OF LIABILITY

Under no circumstances does Sonic Frontiers, Inc. assume liability or responsibility for injury or damages sustained in the use or operation of this equipment or for damages to any other equipment connected to it.
Sonic Frontiers, Inc. reserves the right to make design changes or improvements without the obligation to revise prior versions. All specifications are subject to change without notice.

LIMITED FIVE YEAR WARRANTY

Sonic Frontiers, Inc. warrants to the purchaser that each Pre 1L is free of manufacturing defects for a period of five (5) years from the date of purchase. This five (5) year limited non-transferable warranty excludes all vacuum tubes, which we warrant for a period of twelve (12) months. To receive this warranty, the original purchaser must complete and mail to Sonic Frontiers, within thirty (30) days from the date of purchase, the enclosed Warranty Registration Card. Sonic Frontiers, Inc. will then validate the warranty to the original purchaser. This warranty is subject to the following conditions and limitations:

1. Warranty applies only to the original purchaser.

2. This warranty is void and inapplicable if the product has been handled other than in accordance with the instructions in this Owner's Manual, abused or misused, damaged by accident or neglect or in being transported, or the defect is due to the product being tampered with, modified or repaired by anyone other than Sonic Frontiers, Inc. or an authorized Sonic Frontiers repair depot.

3. Warranty does not cover normal maintenance.

4. Sonic Frontiers, Inc. shall not be responsible in any way for consequential or indirect damages or liabilities resulting from the use and operation of the product covered herein or resulting from any breach of this warranty or any implied warranty relating to said product.

During this period, Sonic Frontiers, Inc. will repair or replace any defective components free of charge. A Return Authorization Number (RA Number) is required before any product is returned to our factory for any reason. This number must be visible on the exterior of the shipping container(s) for Sonic Frontiers to accept the return.

Units shipped to us without a Return Authorization Number or without a visible RA Number on the exterior of the shipping container(s) will be returned to the sender, freight collect.

Units to be repaired by Sonic Frontiers, Inc. must be sent shipping and insurance prepaid by the original purchaser in the original packing material. A returned product should be accompanied by a written description of the defect. Repaired units will be returned by Sonic Frontiers, Inc. shipping and insurance prepaid.

All other warranties or conditions either written or implied are void.

Note: In foreign markets (anywhere outside of Canada and the USA), the warranty is supplied by the authorized International Distributor. Exact terms and conditions may vary.

This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

TECHNICAL SPECIFICATIONS

(AC line set at 117V 60Hz)

FREQUENCY RESPONSE:	2 Hz to 130 kHz -0.5 dB; > 250 kHz -3.0 dB at 1VRMS output
THD & N (Output at 1V RMS):	< 0.1% from 20 Hz to 20 kHz
GAIN:	Selectable, 24, 16 & 8dB settings @ 1kHz
INPUT IMPEDANCE:	40k ohms
OUTPUT IMPEDANCE:	<135 ohms @ 1kHz, all gain settings.
RATED OUTPUT:	1 VRMS
MAXIMUM OUTPUT VOLTAGE:	30 VRMS at 1% THD
NOISE:	< 115µV unweighted wideband noise Approx. 60µV IHF A-weighted noise -90 dB A-weighted below a 1 VRMS output
STEREO SEPARATION (Crosstalk):	> -60dB @ 1kHz relative to 1 VRMS output
TUBE COMPLEMENT:	4 - 6922 (6DJ8 types)
FUSE REQUIREMENTS (1):	.5 A slow-blo (100-120VAC countries), .25A slow-blo (220-240VAC countries)
POWER REQUIREMENTS:	40VA
DIMENSIONS:	19” Wide x 11” Deep x 5.25” High (48 cm x 28 cm x 13.4 cm)
NET WEIGHT:	Approx. 20 lbs (9 kg) - unpacked

ANTHEM

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